What Is Claimed Is:

1. A data processing method comprising the steps of:

(a) reading directory data corresponding to a directory in a file management system which manages files using a directory structure;

(b) reading meta-data to be attached to the directory data;

(c) appending the meta-data read in said step (b) to the end of the directory data read in said step (a); and

(d) outputting as a single directory data file the entirety of the data obtained in said step (c).

2. The method set forth in claim 1, further comprising the step of:

(e) determining whether or not the meta-data read in said step (b) is written in a proper format for a predetermined data writing language;

wherein, in said step (c), the meta-data is appended to the end of the directory data if it is determined in said step (e) that the meta-data is written in the proper format.

3. The method set forth in claim 2, wherein:

in said step (e), it is determined whether or not the meta-data is valid as the predetermined data writing language.

4. The method set forth in claim 2, wherein:

in said step (e), it is determined whether or not the meta-data is well-formed as the data writing language.

5. A method of determining whether meta-data is registered in data of a directory data file, comprising the steps of:

(a) reading a directory data file; and

(b) inspecting data of the directory data file read in said step (a), from the end toward the beginning thereof, and distinguishing the meta-data included in the data by determining whether or not there is data written in a proper format for a predetermined data writing language.

6. The method set forth in claim 5, further comprising the step of:

(c) when meta-data is distinguished in said step (b), extracting and outputting the distinguished meta-data.

7. The method set forth in claim 6, wherein:

in said step (c), display is performed based on the extracted meta-data.

8. The method set forth in claim 6, wherein:

in said step (e), the extracted meta-data is provided

to a tool which performs predetermined processing based on the predetermined data writing language.

9. The method set forth in claim 5, wherein said step (b) further comprises the steps of:

(c) checking whether or not a final character string stipulated in the predetermined data writing language is present at the end of the data; and

(d) when the final character string is present, searching for an initial character string stipulated in the predetermined data writing language, from the end toward the beginning of the data;

wherein, when there is data between the final character string and the initial character string, this data is distinguished as meta-data.

10. The method set forth in claim 9, wherein said step (b) further comprises the step of:

(e) investigating whether or not the data bracketed by the final character string and the initial character string has a proper format for the predetermined data writing language.

11. The method set forth in claim 10, wherein:

the investigation in said step (e) also includes determination of whether the data bracketed by the final character string and the initial character string is valid

as the predetermined data writing language.

12. The method set forth in claim 10, wherein:

the investigation in said step (e) also includes determination of whether the data bracketed by the final character string and the initial character string is well-formed as the predetermined data writing language.

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13. A data processing method comprising the steps of:

(a) reading directory data corresponding to a directory to which belongs data for processing;

(b) extracting meta-data from the directory data read in said step (a); and

(c) based on the meta-data extracted in said step (b), attaching meta-data to the data for processing.

14. The method set forth in claim 13, wherein said step (c) further comprises the step of:

(d) determining whether meta-data is registered in the data for processing;

wherein, when it is determined that no meta-data is registered in the data for processing, the meta-data extracted in said step (b) is attached to the data for processing.

15. The method set forth in claim 13, wherein said step

(c) further comprises the steps of:

(d) determining whether meta-data is registered in the data for processing;

(e) when it is determined that meta-data is registered in the data for processing, the meta-data is separated from the data for processing; and

(f) generating new meta-data based on the meta-data separated in said step (e) and the meta-data extracted in said step (b);

wherein the meta-data generated in said step (f) is attached to the data for processing remaining after separation of the meta-data in said step (e).

16. The method set forth in claim 15, wherein:

in said step (f), new meta-data is generated so as to include all data items included in the meta-data obtained in said step (e) and the meta-data obtained in said step (b).

17. The method set forth in claim 13, wherein:

the data for processing is data copied to another directory.

18. The method set forth in claim 13, wherein:

the data for processing is data moved to another directory.

19. The method set forth in claim 13, wherein:

the data for processing includes a binary data portion; and

in said step (c), the meta-data is appended after the binary data portion.

20. The method set forth in claim 13, wherein:

the data for processing is image data, audio data, or dynamic image data.

21. A data processing method comprising the steps of:

(a) reading data files belonging to an indicated directory;

(b) extracting meta-data from the data files read in said step (a);

(c) generating meta-data for the directory based on the meta-data extracted in said step (b); and

(d) attaching the meta-data generated in said step (c) to directory data.

22. The method set forth in claim 21, wherein:

in said step (c), the meta-data for the directory is generated based on a meta-data item included in all of the meta-data extracted in said step (b).

23. The method set forth in claim 21, wherein:

in said step (c), the meta-data for the directory is generated based on a meta-data item shared by the most meta-data extracted in said step (b).

24. The method set forth in claim 21, further comprising the step of:

(e) generating a new directory, and recording therein data files to which are attached meta-data which includes meta-data items used in the meta-data for the directory generated in said step (c);

wherein, in said step (d), the meta-data generated in said step (c) is attached to directory data corresponding to the new directory.

25. The method set forth in claim 21, further comprising the step of:

(e) generating a new directory, and recording therein data files to which are attached meta-data which does not include meta-data items used in the meta-data for the directory generated in said step (c).

26. The method set forth in claim 21, wherein:
the data file is an image data file, an audio data file, or a dynamic image data file.

27. The method set forth in claim 26, wherein:

in said step (d), the meta-data generated in said step (c) is appended to the end of the directory data.

28. The data processing method set forth in claim 1, wherein the meta-data is written in the data writing language XML.

29. The data processing method set forth in claim 1, wherein the meta-data is written in the data writing language SGML.

30. The data processing method set forth in claim 1, wherein the meta-data is written in the data writing language HTML.

31. A data processing device comprising:

first reading means, for reading directory data corresponding to a directory in a file management system which manages files using a directory structure;

second reading means, for reading meta-data to be attached to the directory data;

appending means, for appending the meta-data read by said second reading means to the end of the directory data read by said first reading means; and

output means, for outputting as a single directory data file the entirety of the data obtained by said appending

means.

32. The device set forth in claim 31, further comprising:

determining means, for determining whether or not the meta-data read by said second reading means is written in a proper format for a predetermined data writing language;

wherein said appending means append the meta-data to the end of the directory data if the determining means determine that the meta-data is written in the proper format.

33. The device set forth in claim 32, wherein:

said determining means determine whether or not the meta-data is valid as the predetermined data writing language.

34. The device set forth in claim 32, wherein:

said determining means determine whether or not the meta-data is well-formed as the data writing language.

35. A data processing device which determines whether meta-data is registered in data of a directory data file, comprising:

reading means, for reading a directory data file; and

distinguishing means, for inspecting data of the directory data file read by said reading means, from the end toward the beginning thereof, and distinguishing the

meta-data included in the data by determining whether or not there is data written in a proper format for a predetermined data writing language.

36. The device set forth in claim 35, further comprising:

output means which, when said distinguishing means distinguish meta-data, extract and output the distinguished meta-data.

37. The device set forth in claim 36, wherein:

said output means perform display based on the extracted meta-data.

38. The device set forth in claim 36, wherein:

said output means provide the extracted meta-data to a tool which performs predetermined processing based on the predetermined data writing language.

39. The device set forth in claim 35, said distinguishing means further comprising:

checking means, for checking whether or not a final character string stipulated in the predetermined data writing language is present at the end of the data; and

search means which, when the final character string is present, search for an initial character string stipulated in the predetermined data writing language, from the end

toward the beginning of the data;

wherein, when there is data between the final character string and the initial character string, said distinguishing means distinguish this data as meta-data.

40. The device set forth in claim 39, said distinguishing means further comprising:

investigating means, for investigating whether or not the data bracketed by the final character string and the initial character string has a proper format for the predetermined data writing language.

41. The device set forth in claim 40, wherein:

said investigating means also determine whether the data bracketed by the final character string and the initial character string is valid as the predetermined data writing language.

42. The device set forth in claim 40, wherein:

said investigating means also determine whether the data bracketed by the final character string and the initial character string is well-formed as the predetermined data writing language.

43. A data processing device comprising:

reading means, for reading directory data

corresponding to a directory to which belongs data for processing;

extracting means, for extracting meta-data from the directory data read by said reading means; and

attaching means which, based on the meta-data extracted by said extracting means, attach meta-data to the data for processing.

44. The device set forth in claim 43, said attaching means further comprising:

determining means, for determining whether meta-data is registered in the data for processing;

wherein, when it is determined that no meta-data is registered in the data for processing, said attaching means attach the extracted meta-data to the data for processing.

45. The device set forth in claim 43, said attaching means further comprising:

determining means, for determining whether meta-data is registered in the data for processing;

separating means which, when it is determined that meta-data is registered in the data for processing, separate the meta-data from the data for processing; and

generating means, for generating new meta-data based on the meta-data separated by said separating means and the meta-data extracted by said extracting means;

wherein said attaching means attach the meta-data generated by said generating means to the data for processing remaining after separation of the meta-data by said separating means.

46. The device set forth in claim 45, wherein:

said generating means generate the new meta-data such that it includes all data items included in the meta-data obtained by said separating means and the meta-data obtained by said extracting means.

47. The device set forth in claim 43, wherein:

the data for processing is data copied to another directory.

48. The device set forth in claim 43, wherein:

the data for processing is data moved to another directory.

49. The device set forth in claim 43, wherein:

the data for processing includes a binary data portion; and

said attaching means append the meta-data after the binary data portion.

50. The device set forth in claim 43, wherein:

the data for processing is image data, audio data, or dynamic image data.

51. A data processing device comprising:

reading means, for reading data files belonging to an indicated directory;

extracting means, for extracting meta-data from the data files read by said reading means;

generating means, for generating meta-data for the directory based on the meta-data extracted by said extracting means; and

attaching means, for attaching the meta-data generated by said generating means to directory data.

52. The device set forth in claim 51, wherein:

said generating means generate the meta-data for the directory based on a meta-data item included in all of the meta-data extracted by said extracting means.

53. The device set forth in claim 51, wherein:

said generating means generate the meta-data for the directory based on a meta-data item shared by the most meta-data extracted by said extracting means.

54. The device set forth in claim 51, further comprising:

first recording means, for generating a new directory,

and recording therein data files to which are attached meta-data which includes meta-data items used in the meta-data for the directory generated by said generating means;

wherein said attaching means attach the meta-data generated by said generating means to directory data corresponding to the new directory.

55. The device set forth in claim 51, further comprising:

second recording means, for generating a new directory, and recording therein data files to which are attached meta-data which does not include meta-data items used in the meta-data for the directory generated by said generating means.

56. The device set forth in claim 51, wherein:

the data file is an image data file, an audio data file, or a dynamic image data file.

57. The device set forth in claim 51, wherein:

said attaching means append the meta-data generated by said generating means to the end of the directory data.

58. The device set forth in claim 31, wherein the meta-data is written in the data writing language XML.

59. The device set forth in claim 31, wherein the meta-data is written in the data writing language SGML.

60. The device set forth in claim 31, wherein the meta-data is written in the data writing language HTML.

61. A memory medium storing a control program to be executed by a computer, said control program comprising code for performing the steps of:

(a) reading directory data corresponding to a directory in a file management system which manages files using a directory structure;

(b) reading meta-data to be attached to the directory data;

(c) appending the meta-data read in said step (b) to the end of the directory data read in said step (a); and

(d) outputting as a single directory data file the entirety of the data obtained in said step (c).

62. A memory medium storing a control program to be executed by a computer, said control program comprising code for performing the steps of:

(a) reading a directory data file; and

(b) inspecting data of the directory data file read in said step (a), from the end toward the beginning thereof, and distinguishing the meta-data included in the data by

determining whether or not there is data written in a proper format for a predetermined data writing language.

63. A memory medium storing a control program to be executed by a computer, said control program comprising code for performing the steps of:

(a) reading directory data corresponding to a directory to which belongs data for processing;

(b) extracting meta-data from the directory data read in said step (a); and

(c) based on the meta-data extracted in said step (b), attaching meta-data to the data for processing.

64. A memory medium storing a control program to be executed by a computer, said control program comprising code for performing the steps of:

(a) reading data files belonging to an indicated directory;

(b) extracting meta-data from the data files read in said step (a);

(c) generating meta-data for the directory based on the meta-data extracted in said step (b); and

(d) attaching the meta-data generated in said step (c) to directory data.